

# **Ancillary & Other Services Volume Methodology Statement**

**Version: 05 October 2001**

**Example (for the purposes of BSC P34  
Modification Proposal working Group) of 1  
October 2001**

## Version Control

Issue	Date	Description
0.1	01/10/01	Example document for illustration / discussion proposed.  (Approval from the Authority has and will not be sought for this discussion document)

## Preamble

This statement is produced by the Transmission Company (and subject to the approval of the Authority) in accordance with the BSC (section T3.13.1) to determine the methodology used to calculate  $QAS_{ij}$ .  $QAS_{ij}$  is the BM Unit Ancillary and Other Service Energy, and is used by the BSC to adjust a party's contracted energy position to reflect their expected delivery of energy under Ancillary and Other Service contracts.

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## 1. Services

This methodology statement allows imbalance for the following services (refer to Section 2 of Part C of the National Grid's Procurement Guidelines) to be removed:

- i. Mandatory Response
- ii. Commercial Response (including that delivered by free governor action and that delivered on LF or HF relay initiation)
- iii. Reserve (consisting of Standing and Fast Reserve)

## 2. Methodology

$QAS_{ij}$  will be determined in accordance with the following formula:

$$QAS_{ij} = \sum_{s \in i} (SF_{sj} \times ESE_{sj})$$

where

$\sum_{s \in i}$	is the summation across all sites, $s$ , forming part (or all of) BMU $i$ .
$ESE_{sj}$	Is the Expected Service Energy from service $s$ in settlement period $j$ , determined in accordance with this methodology statement.
$s$	Is the number of a discreet Ancillary or Other service provision
$SF_{sj}$	Is the Service Flag for site $s$ in settlement period $j$ .  Takes the value 1, if the operator for the BM Unit that incorporates service $s$ has indicated (in accordance with the notification procedure) that they wish the BM volume to be adjusted for that site Ancillary and Other Service volume.  Otherwise 0.

Where Ancillary or Other Service, s, is Response ESE<sub>sj</sub> is determined as follows:

$$ESE_{sj} = \sum_m \sum_{m \in j} \left( \frac{FR_{ms}^m}{60} \right)$$

Where:

$\sum_{m \in j}$  represents the sum over all minutes in **Settlement Period j**

$\sum_m$  represents the sum over all response modes,  $\dot{i}$ .

$FR_{ms}^m$  is the expected **Response** power for site s (expressed in MW) when in response mode  $\dot{i}$ .

- i. For response modes delivered by free governor action, this will be derived from the relevant table set out in the relevant services agreement (as such table is interpreted in accordance with Paragraph 4.1.3.11 of CUSC) by reference to the level of **De-Load** of the site concerned at the end of minute m and the mean **Frequency Deviation** over that minute.

for this purpose:-

- (a) for a positive **Frequency Deviation** in minute m, the expected change in active power output of site s shall be derived from the high frequency response capability table set out in the relevant services agreement; and
- (b) for a negative **Frequency Deviation** in minute m, the expected change in active power output of site s shall be (where the **User** is instructed to provide **Primary Response** together with **Secondary Response**) the mean average value of the **Primary Response** capability and **Secondary Response** capability, or (where the **User** is instructed to provide **Primary**

**Response without Secondary Response) Primary Response** capability, in each case derived from the low frequency response table set out in the relevant services agreement.

- ii. For response delivered by low or high frequency relay initiation shall be calculated with reference to the actual system frequency and the contracted initiation.
  - (a) For the period immediately following an initiation in accordance with the contract (or where the service would have been obliged to initiate in accordance with the contract) and prior to a cease or deemed cease instruction, the expected change in active power as derived from the contracted secondary or high frequency response (as the case may be).
  - (b) For the period immediately following a cease (or deemed cease) instruction the agreed restoration profile.
  - (c) For all other periods, 0 MW.

Where Ancillary or Other service, s, is Reserve,  $ESE_{sj}$  will be determined as follows:

$$ESE_{sj} = \int_0^{SPD} I_{sj}(t) dt$$

where:

$I_{sj}(t)$  Is the instructed (excluding Bid Offer Acceptances) Reserve delivery, from site s, time t from the start of settlement period j, taking account of contracted run-up and run down profiles.

Where  $ESE_{sj}$  for Ancillary or Other Service,  $s$ , has not been previously determined, as follows:

$$ESE_{sj} = 0$$

### **3. Disputes**

In the event that the operator of site  $s$ , or the operator of the BM Unit,  $i$ , that incorporates site  $s$  disagrees with the calculation of  $QAS_{ij}$ , they will raise a dispute with the Transmission Company and provide any supporting evidence. A dispute may only be raised within 28 days of the Settlement Day to which the dispute relates.

If the Transmission Company agrees with the dispute, it will notify a revised value of  $QAS_{ij}$  to the SAA.

If the Transmission Company does not agree with the dispute, it will provide the disputing party with supporting evidence, and the two parties will seek to agree.

If after 28 days of the dispute being raised no agreement has been reached the Transmission Company may refer the matter to the Authority for a determination (the Transmission Company being obliged to make such reference if requested by the disputing party). The Transmission Company will then notify a revised value of  $QAS_{ij}$  to the SAA if/as directed by the Authority.

### **4. Publication of Information**

The Transmission Company will make available on its website a copy of this methodology statement.

Not more than three months after the end of the financial year, the Transmission Company shall provide the Director with a statement, which, with respect to the values of  $QAS_{ij}$  notified to the SAA for the relevant year shall:

- i. be certified by a Director of the Transmission Company (on behalf of the Transmission Company) indicating that to the best of his knowledge, information and belief, the values of  $QAS_{ij}$  notified are correctly calculated in accordance with this methodology statement.

- ii. be accompanied by a report from the Auditors (as defined in the Transmission Licence), stating that in their opinion, that the Transmission Company has correctly notified values of  $QAS_{ij}$  to the SAA in accordance with this methodology statement.

## **5. Variation of this Statement**

If the Transmission Company wishes to vary this statement (or is directed to do so by the Authority) it will notify its proposals to:

- i. BSC signatories
- ii. Any party with an Ancillary or Other Service contract
- iii. The Authority

and place a copy of its proposals on its website.

The Transmission Company will consult for a period of 28 days (or less if instructed by the Authority), prior to seeking the Authority's approval for the proposed change.